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Applicant: THE PROCTER & GAMBLE  
COMPANY

One Procter & Gamble Plaza  
Cincinnati Ohio 45202(US)  
CH ES GB LI AT

Applicant: Procter & Gamble European  
Technical Center (Naamloze Vennootschap)  
Temseleaan 100

B-1820 Strombeek-Bever(BE)

BE DE FR IT LI NL

Inventor: Lestbeek, Antonius Cornelius  
Gerardus

Résilas Pagodes 9 Av. des Croix du Feu 101  
B-1020 Bruxelles(BE)

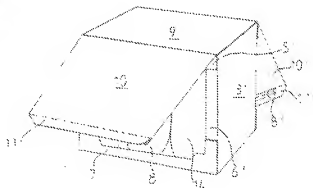
Inventor: Verdoodt, Dirk  
Koningin Astridlaan 146 Bus 301  
B-2800 Mechelen(BE)

Representative: Susilo, Lydia et al  
Procter & Gamble European Technical  
Center N.V. Temseleaan 100  
B-1820 Strombeek-Bever(BE)

Easy-opening device for a two-piece shipping/display container.

Two-piece shipping/display container, the lid part of which covers the top and opposite side panels of the tray part and is attached to a partially perforated portion of the lower frame portion of the opposite side panels, said partially perforated portion being torn out when the lid part is removed.

FIG. 4



EP 0 235 852 A2

## EASY-OPENING DEVICE FOR A TWO-PIECE SHIPPING/DISPLAY CONTAINER

Technical Field

The invention relates to a two-piece shipping/display container which is completely opened during the shipping stage, can be easily opened for the display stage and presents, upon opening, two opposite windows in the two opposite front panels and an open top.

Background of the invention

Present shipping, storing and displaying techniques have made it desirable to be able to use the same container at each of these three stages, also when the individual items packed in the container are rather large or heavy. The requirements to be fulfilled at each of these stages are mostly quite different and sometimes even contradictory. Indeed, for the shipping and storing stages it is important that the containers be strong, allow slacking, and keep the contents free of dust. At the display stage, strength and stackability are still important, but the individual items packed in the containers have to be visible and easily accessible for price-marking and removal. It is furthermore highly desirable that the containers can be easily opened without need for a tool or much time or energy. Furthermore, upon opening, no raw or unsightly edges should be left. Finally, it is highly desirable that all the material used for a shipping/storing/display container be of the same type, in order to render the scrapping operation more economical. All these requirements have to be fulfilled without unduly increasing the cost of the container.

It is, therefore, an object of the present invention to provide a container which keeps its contents free of dust during shipping and storing, which is strong enough to allow stacking during shipping/storing and displaying of a number of rather heavy or bulky individual items and which, at the same time, is easy to open at the display stage without leaving any raw or unsightly edges and gives full visibility to its contents, allowing easy price-marking and removal of the individual, frequently heavy items it contains.

A shipping/display container offering good stackability, good accessibility and easy opening has been disclosed in the not yet published European patent application 85201560.8 filed October 2, 1985, claiming priority of British application 8425882 filed October 12, 1984. Easy opening of a cardboard container by combination of gluing and

partial perforation at the planned opening spot has been disclosed for example in German patent application 2 217 946, filed April 14, 1972, published October 25, 1973. None of these containers combine, however, the advantages of strength during shipping/storing/display; of protection from dust during shipping/storing; and of extensive visibility of the individual items during display, combined with easy price marking and accessibility.

Summary of the invention

In the present invention, a two-piece shipping/display container is provided. The bottom or tray part consists of a bottom, two opposite side-panels, two opposite composite front-panels and four reinforcing corner pillars. The two opposite composite front panels are provided with a see-through window, whereas the two opposite side-panels show an extension which serves as top flaps when folded over by 90° towards each other, said top flaps serving as basis on which the central portion of the second part of the container can be attached by means of an adequate number of glue spots, to serve as a lid. The second part, or lid part, consists of a blank showing four creases, which divide the blank into five portions, the central portion serving as top for the complete container, the two extensions on the two opposite sides of the central portion serving as cover for the see-through windows left in the two opposite composite front panels of the container and the two extreme shorter extensions serving partially for giving onto the tray part to close the container and partially as opening tabs of the lid part for the container. When the container is to be opened, it is sufficient to pull at the opening tabs to detach the lid part from the tray part, onto which it is attached by adequate glue both along the lower edge of the see-through windows and on the folded-over extensions of the top of the side-panels.

In a preferred embodiment, the part of the two extreme shorter portions which serves for gluing onto the tray part coincides with a partially perforated part in the two opposite composite front panels, said partially perforated part constituting the lower edge of the see-through windows when the container is in upright position. In this way, when the two-piece shipping/display container is to be opened to serve its display function, the extreme free end of one or both of the shorter portions of the lid part which is free of glue can be grasped and, by pulling, the partially perforated part in the two opposite composite front panels constituting

the lower edge of the see-through windows which is strongly glued to the respective shorter portions of this lid part, can be broken away to enlarge the windows and provide even better visibility and accessibility of the individual items packed. Thanks to the appropriate partial perforations, this to be broken away part is removed without leaving any raw or unsightly edges and without damaging the artwork printed on the outside of the container.

For the sake of simplicity and clarity reference is made to two opposite front panels for, as will be seen from the drawings and description, these two opposite front panels are absolutely identical and can each, or both together, be considered front panels at the display stage, where this really matters. These two opposite front panels are designated as composite front panels since they are built up by individual elements as will be evident from the description of the drawings hereafter, this being in contradiction with the opposite side panels, which each consist of an integral piece of cardboard.

#### Brief description of the Drawings

While the specification concludes with the claims which particularly point out and distinctly claim the subject matter forming the present invention, it is believed the invention will be better understood from the following description taken in conjunction with the accompanying drawings in which identical features in the several views are identically designated and in which:

•Fig. 1a is a plan view of the carton blank for the bottom or tray part of the most preferred embodiment of the container according to the present invention.

•Fig. 1b is a plan view of the top or lid part for the container formed of the carton blank represented in fig. 1a.

•Fig. 2 is a perspective view of the erected bottom or tray part of the container formed of the carton blank represented in fig. 1a on which the top or lid part formed of carton blank represented in fig. 1b has been partially attached (the normally occurs only after the tray part has been filled).

•Fig. 3 is a perspective view of the closed container of fig. 2.

•Fig. 4 is a perspective view of a filled container constructed with blanks represented in fig. 1a and 1b, which is being opened.

•Fig. 5 is a perspective broken-away view showing how one of the extreme shorter portions of the top or lid part serves to open the closed container and to tear away part of the front panel

constituting the lower edge of the see-through window

#### 5 Detailed Description of the Drawings

The blank for the bottom or tray part 20 of container 1 illustrated in fig. 1a consists of bottom panel 2, side panels 3 and 3', top flaps 4 and 4' provided with ears 5, 5', 6' and 5", pillar elements 6, 6', 6" and 6", composite front panels 10 and 10', with pre-cut tear-out areas 8 and 8'.

The blank for the top or lid part 21 illustrated in fig. 1b consists of central portion 9, extensions 10 and 10' and two extreme shorter extensions 11 and 11'. Glue strips to be applied when closing the container are indicated by 13 and 13'.

Fig. 2 shows how the carton blank of fig. 1a has been erected to form the bottom or tray part of the container and how the container will be closed after filling. Side panels 3 and 3' have been brought in vertical position, elements for pillars 6, 6', 6" and 6" have been folded over in a conventional way to build pillars resting partially against side panels 3 and 3' and basis elements 7 and 7' have been brought in vertical position, partially folded over by 180° towards the inside of the container, the folded-over parts being held in place by glue in order to form the basis of the composite front panels. After filling, top flaps 4 and 4' (not shown) have been folded inward by 90° and ears 5, 5', 5" and 5" have been folded down and glued against respectively pillars 6, 6', 6" and 6". Subsequently, central portion 9 of lid part 21 is attached by glue spots 12 on the top flaps 4 and 4' and extensions 10 and 10' are folded down by 90° and held in place by glue strips 13/13' in extension 11/11' against basis elements 7 and 7', in the pre-cut tear-out areas 8 and 8'.

Fig. 3 shows the erected container represented in fig. 2 after it has been filled and closed. Central portion 9 of the top or lid part has been attached by means of glue spots 12 on the flaps 4 and 4' of the bottom or tray part, whereas extensions 11 and 11' of said top or lid part have been attached by means of a glue strip 13 close to the holding line of pre-cut tear-out parts 8 and 8' of the bottom or tray part of the container. It is evident that this complete container combines stability with good protection of its contents.

Fig. 4 shows how the erected, filled and closed container of fig. 3 has been partially opened and how items 14 it contains, can already be seen. When comparing fig. 2 with fig. 4, it is evident that, by pulling on extensions 11/11', perforated parts

8/8' of the composite front panels are removed and the see-through windows are enlarged, so that items 14 shipped and displayed in the container can be better seen and more easily removed.

Fig. 5 shows how the pre-cut parts 8/8' of basic elements 7/7' are being torn away when the closed container is opened by pulling at extensions 11/11'.

Although the above embodiment shows a preferred execution of the invention, it will be evident to the man of the art that a number of variations are possible, inclusive of providing the container with the enlarged see-through window in one front panel only, providing carrying-holes in the side panels, altering the relative dimensions of the container, etc.

#### Claims

1. Two-piece shipping/display container (1) comprising:

a. a bottom or tray part (20) consisting of a bottom (2), two opposite side-panels (3,3') showing an extension (4,4') to be folded over by 90° towards each other; two opposite composite front panels each with a see-through window; and four reinforcing corner pillars (6, 6', 6", 6");

b. a top or lid part (21);

characterized in that said lid part consists of a blank showing four creases which divide the blank into five portions, the central portion (8) coinciding with the open top of the tray part (20) of the container, the two portions (10, 10') on the two opposite sides of the central portion (8) coinciding with the two opposite composite front panels of the tray part (20) and extending as far as to cover the see-through windows; and two extreme shorter portions (11, 11') which are partially glued underneath the see-through windows in both front panels of the tray of the container, the extreme free end of both shorter portions being left free of glue.

2. Two-piece shipping/display container according to claim 1, characterized in that the glued (13, 13') part of one or each of the two extreme shorter portions (11, 11') coincides with a partially perforated part (8, 8') in one or each of the two opposite/composite front panels, said partially perforated part (8, 8') constituting the lower edge of the see-through windows when the container is in upright position.

3. Two-piece shipping/display container according to any of the preceding claims, characterized in that it is filled by rows of individual items (14).

FIG. 1a

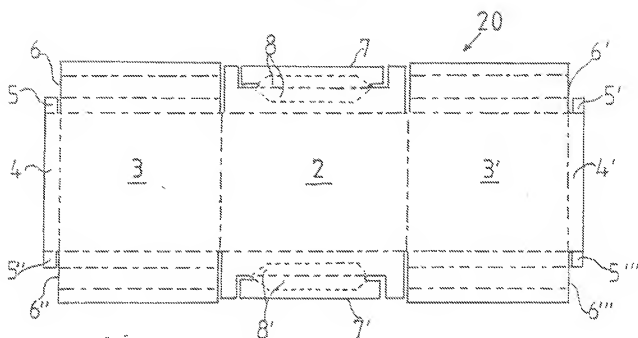
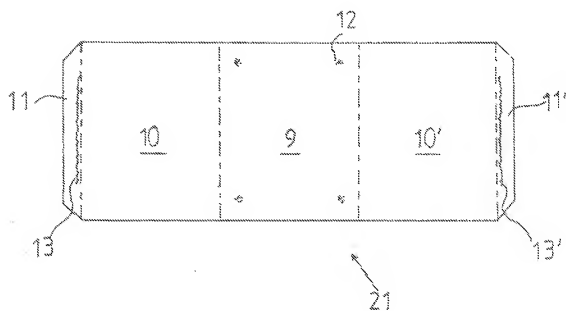


FIG. 1b



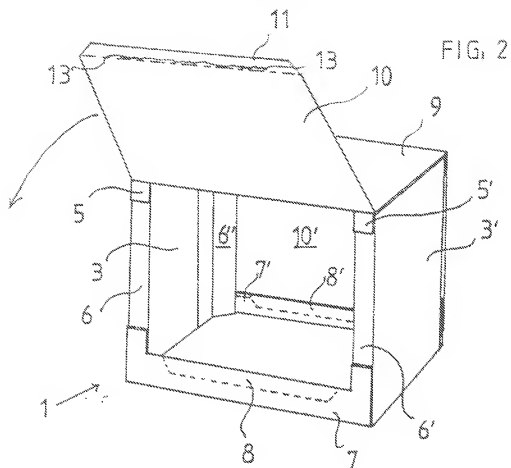


FIG. 3

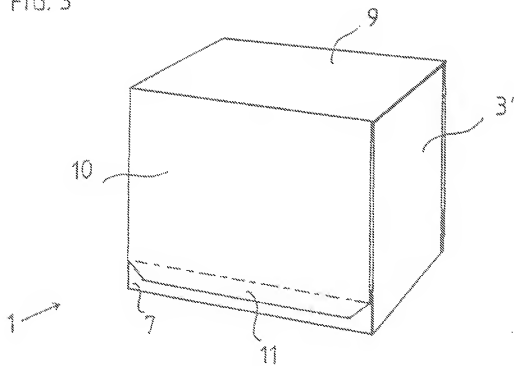


FIG. 4

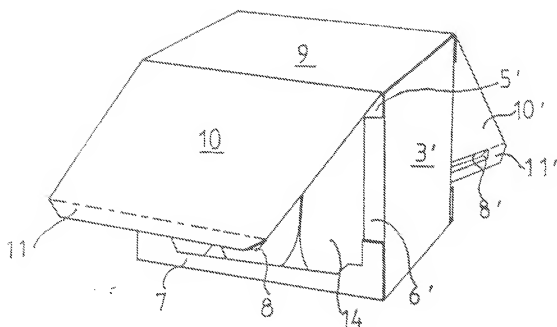


FIG. 5

